

What is Claimed is:

1. An interfering RNA that inhibits the expression of GP131.
2. The interfering RNA of claim 1, wherein the interfering RNA targets the sequence of SEQ ID NO: 3, SEQ ID NO: 4, or SEQ ID NO: 5.
3. The interfering RNA of claim 1, wherein the interfering RNA inhibits tumorigenesis, tumor development, tumor maintenance, tumor recurrence, tumor growth, or growth of tumor cells *in vitro*.
4. A method of inducing apoptosis in a cell, comprising contacting the cell with an effective amount of the interfering RNA of claim 1.
5. A method of treating a hyperproliferative condition in a mammal, comprising administering to the mammal an effective amount of the interfering RNA of claim 1.
6. The method of claim 5, wherein the hyperproliferative condition is a cancer.
7. The method of claim 5, further comprising the step of administering a second therapeutic agent to the mammal.
8. The method of claim 6, wherein said second therapeutic agent is selected from the group consisting of an anti-angiogenic agent, anti-metastatic agent, agent that induces hypoxia, agent that induces apoptosis, and an agent that inhibits cell survival signals.
9. An antibody that specifically binds to GP131 and inhibits GP131 activity.
10. The antibody of claim 1, wherein the antibody inhibits tumorigenesis, tumor development, tumor maintenance, tumor recurrence or tumor growth.
11. A method of inducing apoptosis in a cell, comprising contacting the cell with an effective amount of the antibody of claim 9.
12. A method of treating a hyperproliferative condition in a mammal, comprising administering to the mammal an effective amount of the antibody of claim 9.

13. The method of claim 12, wherein the hyperproliferative condition is a cancer.
14. The method of claim 12, further comprising the step of administering a second therapeutic agent to the mammal.
15. The method of claim 14, wherein the second therapeutic agent is selected from the group consisting of an anti-angiogenic agent, anti-metastatic agent, agent that induces hypoxia, agent that induces apoptosis, and an agent that inhibits cell survival signals.
16. A host cell comprising a recombinant DNA comprising a GP131-encoding sequence operably linked to an expression control sequence, wherein the host cell further comprises a genetic mutation that causes the host cell to have a greater likelihood of becoming a cancer cell than a cell not comprising the genetic mutation.
17. The cell of claim 16, where the genetic mutation is in a tumor suppressor gene.
18. A genetically modified non-human mammal at least some of whose cells comprise a genome comprising: (a) a recombinant GP131-encoding nucleic acid operably linked to an expression control sequence, and (b) a genetic mutation that causes the mammal to have a greater susceptibility to cancer than a mammal not comprising the genetic mutation.
19. The genetically modified nonhuman mammal of claim 18, where the genetic mutation is in a tumor suppressor gene.
20. The genetically modified nonhuman mammal of claim 18, wherein the mammal is a transgenic mammal, all of whose cells comprise a recombinant GP131-encoding nucleic acid operably linked to an expression control sequence, and a genetic mutation that causes the mammal to have a greater susceptibility to cancer than a mammal not comprising the genetic mutation.
21. The genetically modified nonhuman mammal of claim 18, wherein the mammal is a chimeric mammal at least some of whose, but not all of whose, somatic cells comprise a recombinant GP131-encoding nucleic acid operably

linked to an expression control sequence, and a genetic mutation that causes the mammal to have a greater susceptibility to cancer than a mammal not comprising the genetic mutation.

22. The chimeric mammal of claim 21, wherein the percentage of somatic cells comprising a recombinant GP131-encoding nucleic acid operably linked to an expression control sequence, and a genetic mutation that causes the mammal to have a greater susceptibility to cancer is between 5% and 95%.

23. The chimeric mammal of claim 22, wherein the percentage of somatic cells comprising the recombinant GP131-encoding nucleic acid operably linked to an expression control sequence, and the genetic mutation that causes the mammal to have a greater susceptibility to cancer is between 15% and 85%.

24. The genetically modified nonhuman mammal of claim 18, wherein the GP131-encoding nucleic acid is operably linked to a tissue-specific expression system.

25. A genetically modified nonhuman mammal, wherein the genetic modification reduces or eliminates expression of the mammal's endogenous GP131 genes.

26. The mammal of claim 25, wherein the genetic modification is a knockout of at least one of the mammal's endogenous GP131 alleles.

27. The mammal of claim 25, wherein the genetic modification is addition of an RNAi expression construct targeting GP131 gene expression.

28. The mammal of claim 25, wherein the genetic modification eliminates expression of the mammal's endogenous GP131 genes in a tissue-specific manner.

29. The mammal of claim 25, wherein the mammal is chimeric with respect to the genetic modification.

30. A screening method for identifying a compound useful for treating a hyperproliferative condition, comprising:

a) identifying a biomarker whose level correlates with inhibition of GP131 activity; and

b) detecting a change in the level of the biomarker in the presence of a test compound relative to the level of the biomarker detected in the absence of the test compound.

31. The method of claim 30, wherein said hyperproliferative condition is cancer.

32. A screening method for identifying a compound useful in treatment of a hyperproliferative condition comprising:

(a) providing an inhibitor of GP131 expression or activity;

(b) identifying a negative control biomarker pattern formed by a plurality of biomarkers in a cancer cell wherein the cell is not contacted with the inhibitor of GP131 expression or activity;

(c) identifying a positive control biomarker pattern formed by a plurality of biomarkers in the cancer cell wherein the cancer cell is contacted with the inhibitor of GP131 expression or activity;

(d) identifying a test biomarker pattern formed by a plurality of biomarkers in the cancer cell wherein the cancer cell is contacted with a candidate compound but not contracted with the inhibitor of GP131 expression or activity; and

(e) comparing the negative control biomarker pattern, positive control biomarker pattern and test biomarker pattern,

detecting a greater similarity between the positive control biomarker pattern and the test biomarker pattern than between the negative control biomarker pattern and the test biomarker pattern.

33. A method of claim 30, wherein the said hyperproliferative condition is cancer.

34. A screening method for identifying a compound that inhibits GP115 activity, comprising:

(a) providing a suitable ceramide preparation containing ceramide and ATP,

(b) adding to the preparation a test compound,

(c) adding to the preparation a suitable amount of GP131 (ceramide kinase), and

(d) detecting a decrease in ceramide phosphate production in the presence of the test compound relative to ceramide phosphate production in the absence of the test compound.